



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,711	05/18/2007	Klaus Benke	11987-00043-US	3892
23416 7590 10/01/2009 CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899				
EXAMINER				
BROWLE, DAVID				
ART UNIT		PAPER NUMBER		
1616				
MAIL DATE		DELIVERY MODE		
10/01/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/580,711

**Applicant(s)**

BENKE, KLAUS

**Examiner**

DAVID M. BROWNE

**Art Unit**

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date May 24, 2006, April 11, 2008, and October 24, 2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_



### **DETAILED ACTION**

**Claims 1-20 are pending; claim 21 is cancelled.**

#### ***Foreign Priority***

Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in the Federal Republic of Germany on November 27, 2003. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

#### ***Domestic Benefit***

Applicant's claim for the benefit of a prior-filed International Patent Application PCT/EP04/12897 under 35 U.S.C. 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 365(c) as follows: the International Patent Application was not published in English.

#### ***Specification***

The specification is objected to for the following reason:

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.

Art Unit: 1616

- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm *et al.* (U.S. Patent No. 6,074,670), in view of Straub *et al.* (U.S. Patent Application Pub. No. 20030153610).**

***Applicant Claims***

Applicants claim a process for the preparation of a solid, oral pharmaceutical composition comprising 5-chloro-N-({(5S)-2-oxo-3-[4-(3-oxo-4-morpholinyl)-phenyl]-1,3-oxazolidin-5-yl)-methyl)-2-thiophenecarboxamide (e.g. "active compound I") in hydrophilized form comprising a) preparing granules comprising "active compound I" in hydrophilized form by moist granulation, and b) converting the granules into the pharmaceutical composition, if appropriate with addition of pharmaceutically acceptable additives. "Active compound I" is in crystalline and micronized form, is suspended in the granulating liquid, and introduced into a fluidized bed granulation. The resulting pharmaceutical composition is a rapid-release tablet.

Applicants also claim a solid, oral pharmaceutical composition comprising "active compound I" in hydrophilized, crystalline and micronized form; sodium lauryl sulphate as a wetting agent; and hydroxypropylmethylcellulose as a hydrophilic binding agent. The "active compound I", sodium lauryl sulphate, and hydroxypropylmethylcellulose are present in a concentration of 1-60%, 0.1-5%, and 1-15%, respectively, based on the total mass. The composition is a rapid-release tablet or a tablet covered with a coating.

Applicants further claim a method for the prophylaxis and/or treatment of thromboembolic diseases comprising administering an effective amount of the pharmaceutical composition or of "active compound I" in hydrophilized form.

***Determination of the Scope and Content of the Prior Art (MPEP §2141.01)***

Stamm *et al.* disclose a process for the preparation of a solid, oral pharmaceutical composition comprising an active ingredient of poor aqueous solubility, particularly fenofibrate, in hydrophilized form comprising a) preparing granules comprising fenofibrate in hydrophilized form by moist granulation, and b) converting the granules into the pharmaceutical composition, if appropriate with addition of pharmaceutically acceptable additives (Col. 1, Ins. 8-21, 38-63; Col. 3, Ins. 32-45; Col. 4, Ins. 27-28, 38-39, 60-65; Col. 5, Ins. 36-67). Fenofibrate is in crystalline and micronized form, is suspended in the granulating liquid, and introduced into a fluidized bed granulation (Col. 3, Ins. 32-45; Col. 5, Ins. 38-67). The resulting pharmaceutical composition is a rapid-release tablet (Col. 3, Ins. 12-14; Col. 5, Ins. 20-25).

Applicants also claim a solid, oral pharmaceutical composition comprising an active ingredient of poor aqueous solubility, particularly fenofibrate, in hydrophilized, crystalline and micronized form; sodium lauryl sulphate as a wetting agent; and hydroxypropylmethylcellulose as a hydrophilic binding agent (Col. 1, Ins. 10-13, 38-55; Col. 3, Ins. 13-23; Col. 4, Ins. 14-39; Col. 5, Ins. 20-25, 29-30, 36-39). Fenofibrate, sodium lauryl sulphate, and hydroxypropylmethylcellulose are present in a concentration of 2.5-25%, 0-5%, and 10-30%, respectively, based on the total mass including the outer phase/layer, in which the outer phase/layer is taken to comprise 50% of the total pharmaceutical composition mass (Col. 4, Ins. 66-67; Col. 5, Ins. 1-10). The composition is a rapid-release tablet or a tablet covered with a coating (Col. 3, Ins. 12-14; Col. 4, Ins. 53-59; Col. 5, Ins. 20-25).

Straub *et al.* disclose a solid, oral pharmaceutical composition comprising 5-chloro-N-(((5S)-2-oxo-3-[4-(3-oxo-4-morpholinyl)-phenyl]-1,3-oxazolidin-5-yl)-methyl)-2-thiophenecarboxamide (e.g. "active compound I") (Pg. 2, sec. 0012-0018; Pg. 15, sec. 0363, 0367, 0369; Pg. 26, example 44), and a method for the prophylaxis and/or treatment of thromboembolic diseases comprising administering an effective amount of the pharmaceutical composition or of "active compound I" (Pg. 1, secs. 0009-0010; Pg. 14-15, sec. 0356; Pg. 15, sec. 0364; Pg. 16, sec. 0373).

***Ascertainment of the Difference Between the Scope of the Prior Art and the Claims (MPEP §2141.012)***

Stamm *et al.* disclose a process of formulating an active ingredient poorly soluble in an aqueous medium into an effective oral dosage form such as an immediate-release tablet. Stamm *et al.* further disclose the solid, oral pharmaceutical composition comprising an active ingredient of poor aqueous solubility, in hydrophilized, crystalline and micronized form, together with sodium lauryl sulphate as a wetting agent, and hydroxypropylmethylcellulose as a hydrophilic binding agent, which can be in the form of an immediate-release tablet. Stamm *et al.* incorporate the poorly water-soluble drug fenofibrate, in their pharmaceutical composition. Stamm *et al.*, however, do not explicitly teach incorporating the poorly water-soluble drug 5-chloro-N-(((5S)-2-oxo-3-[4-(3-oxo-4-morpholinyl)-phenyl]-1,3-oxazolidin-5-yl)-methyl)-2-thiophenecarboxamide (e.g. "active compound I") in their pharmaceutical composition, and using this composition to treat thromboembolic diseases. This deficiency is cured by the teachings of Straub *et al.*, that



"active compound I" can be incorporated into a suitable pharmaceutical composition and used in a method for the prophylaxis and/or treatment of thromboembolic diseases.

***Finding of Prima Facie Obviousness Rational and Motivation***

***(MPEP §2142-2143)***

It would have been *prima facie* obvious for one of ordinary skill in the art at the time of the present invention to combine the teachings of Stamm *et al.* and Straub *et al.* to arrive at a) a process of formulating "active compound I" into an effective oral dosage form such as an immediate-release tablet; b) the solid oral pharmaceutical composition comprising "active compound I" in micronized form, together with sodium lauryl sulphate as a wetting agent, and hydroxypropylmethylcellulose as a hydrophilic binding agent, which can be in the form of an immediate-release tablet; and c) a method for the prophylaxis and/or treatment of thromboembolic diseases comprising administering an effective amount of the pharmaceutical composition or of "active compound I".

Fenofibrate and "active compound I" are both strongly hydrophobic, poorly water-soluble compounds. Since the solid pharmaceutical formulation disclosed by Stamm *et al.* for fenofibrate greatly facilitated and enhanced fenofibrate's dissolution profile and bioavailability following oral administration, one of ordinary skill in the art would be motivated to formulate "active compound I" in a similar manner with the reasonable expectation that this formulation would successfully facilitate and likewise enhance the dissolution profile and bioavailability for "active compound I" following oral administration. Therefore, the claimed invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID M. BROWE whose telephone number is 571-270-1320. The examiner can normally be reached on Monday-Friday 7:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DAVID M. BROWE  
Patent Examiner, Art Unit 1616

/Johann R. Richter/  
Supervisory Patent Examiner, Art Unit 1616